

Title (en)
ROTOR CORE, MOTOR, AND METHOD FOR MANUFACTURING MOTOR

Title (de)
ROTORKERN, MOTOR UND VERFAHREN ZUR HERSTELLUNG DES MOTORS

Title (fr)
NOYAU DE ROTOR, MOTEUR ET PROCÉDÉ DE FABRICATION DU MOTEUR

Publication
EP 2816709 A1 20141224 (EN)

Application
EP 12868494 A 20120907

Priority
• JP 2012033428 A 20120217
• JP 2012072967 W 20120907

Abstract (en)
A rotor core is composed of a laminated steel body formed by axially laminating a plurality of magnetic core plates one above another. The core plates extend in a direction orthogonal to a vertical center axis. The rotor core includes a plurality of magnetic pole portions arranged along a circumferential direction. At least some of the core plates include claws protruding from the magnetic pole portions in the circumferential direction and outer connection portions arranged radially outward of the claws to interconnect the magnetic pole portions adjoining to each other. The claws restrain the magnets from being displaced radially outward by centrifugal forces. In addition, the outer connection portions restrain the rotor core from being deformed by centrifugal forces. In particular, the outer connection portions restrain the claws from being displaced by centrifugal forces. This makes it possible to further restrain displacement of the magnets.

IPC 8 full level
H02K 1/27 (2006.01); **H02K 15/02** (2006.01)

CPC (source: EP US)
H02K 1/2773 (2013.01 - EP US); **H02K 15/03** (2013.01 - US); **H02K 2213/03** (2013.01 - EP US); **Y10T 29/49012** (2015.01 - EP US)

Cited by
EP3410573A1; KR20170052005A; EP3338343A4; US10651696B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2816709 A1 20141224; **EP 2816709 A4 20151104**; **EP 2816709 B1 20210818**; **EP 2816709 B8 20220810**; CN 104054237 A 20140917; CN 104054237 B 20161228; JP 2013172491 A 20130902; JP 5858232 B2 20160210; RU 2014125057 A 20160410; RU 2597218 C2 20160910; US 2015180292 A1 20150625; US 2017271932 A1 20170921; US 9712007 B2 20170718; WO 2013121611 A1 20130822

DOCDB simple family (application)
EP 12868494 A 20120907; CN 201280067327 A 20120907; JP 2012033428 A 20120217; JP 2012072967 W 20120907; RU 2014125057 A 20120907; US 201214362142 A 20120907; US 201715617072 A 20170608